

- IP67 rating For LED Indoor & Outdoor Installation
- Wide Input Range for worldwide use (up to 305Vac)
- Built-in PFC Function: up to PF 0.98
- Class 2 power unit
- 3 in 1 Dimming Function(with dim-to-off function)
- High Reliability & Long Life 50,000hrs
- All-Round Protections: Short Circuit/ Over Voltage/ Over Temperature
- Safety: Meet IEC61347-2-13, UL8750 & EMI EN55015



IP67        Type

FSP90-SZAP(XXX)MG
MG Type: 3 in 1 Dimming Function
G Type: Constant Voltage Type

SPECIFICATION

| Model Name | FSP90-SZAP(375)MG | FSP90-SZAP(250)MG | FSP90-SZAP(188)MG | FSP90-SZAP(167)MG | |
|------------------------------|--|---|-------------------|-------------------|------------|
| Output | Rated Power | 90W | 90W | 90.24W | 90.18W |
| | Output Voltage | 14.4 ~ 24V | 21.6 ~ 36V | 28.8 ~ 48V | 32.4 ~ 54V |
| | Rated Current | 3.75A | 2.5A | 1.88A | 1.67A |
| | Output Current Accuracy | ±5% | ±5% | ±5% | ±5% |
| | Auxiliary DC Output | DC 12V @ 0.2A (Deviation 11.4~12.6V) | | | |
| | Output Ripple Current[2] | ±5% | ±5% | ±5% | ±5% |
| Turn On Delay Time,Rise time | ≤500ms max /115Vac,230Vac ; ≤300ms max /115Vac,230Vac at full load | | | | |
| Input | Input Voltage/ Frequency[3] | 90~305Vac / 47~63Hz (Please refer to Static Curve) | | | |
| | Power Factor (max.) | PF ≥0.98/115Vac, PF ≥0.96/230Vac, PF ≥0.94/277Vac at full load | | | |
| | Efficiency (max.) | 89% | 89% | 89% | 89% |
| | Total Harmonic Distortion | THD <20% (@Output Loading ≥60%/115Vac ,230Vac ;@Output Loading ≥75%/277Vac) | | | |
| | AC Current (typ.) | ≤0.95A /115Vac ; ≤0.5A /230Vac ; ≤0.4A /277Vac | | | |
| | Inrush Current (typ.) | ≤65A at 230Vac, Cold start | | | |
| Environment | Leakage Current | ≤0.25mA/277Vac | | | |
| | Operating Temperature | -40°C ~ +70°C (Please Refer to "Derating Curve") | | | |
| | Operating Humidity | 20 ~ 95% RH non-condensing | | | |
| | Storage Temperature, Humidity | -40°C ~ +85°C, 10% ~ 95% RH | | | |
| Protection | Vibration | 0.02g ² /Hz at 5 Hz sloping to 0.04g ² /Hz at 20 Hz, and maintaining 0.04g ² /Hz from 20 Hz to 500 Hz at a constant acceleration of 4.43G for 30 minutes per axis for all three axes | | | |
| | Over Voltage Protection | <50V | <50V | <63V | <63V |
| | Short Circuit Protection | Recovers automatically after fault condition is removed | | | |
| | Over Temperature Protection | Recovers automatically after fault condition is removed | | | |
| Safety & EMC | Safety Standards | Design Refer to EN61347-1, EN61347-2-13, UL8750 | | | |
| | EMC Standard | Compliant with EN55015/CISPR22 CLASS B, Compliant with EN61000-3-2 Class C (≥60% load), EN61000-3-3 | | | |
| | Surge Protection | Line-Line 4KV | | | |
| | Withstand Voltage (Hipot) | I/P-O/P 3.6KVac | | | |
| Others | Isolation Resistance | I/P-O/P: 100M ohm @ 500Vdc/ 25°C / 70% RH | | | |
| | Life Time [4] | 50,000 hours at Tcase of ≤ 75°C | | | |
| | Dimension (LxWxH) | 176 x 63 x 37.5 mm | | | |
| | Net Weight / Packing | 680g; 10 pcs/ box | | | |
| Stand by Power[5] | <0.5W | | | | |

Notes:

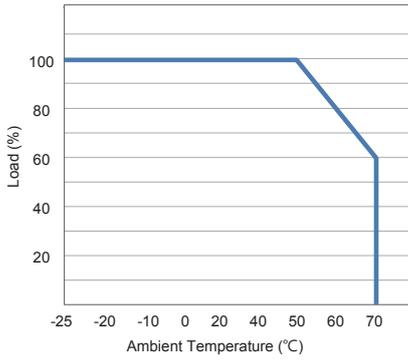
- All data NOT specially mentioned are measured at 230Vac/ 50Hz input, full load and 25°C of ambient temperature.
- The ripple current must be measured under the condition of AC coupling & 20MHz bandwidth. (Rated input and rated output)
- De-rating may be needed under low input voltages. Please check the static characteristics for more details.
- Measured at 230Vac/50Hz input, 80% load.
- Apply with constant voltage model.
- The power supply is considered as a component that will be operated in combination with final equipment. Since EMC performance will be affected by the complete installation, the final equipment manufacturers must re-qualify EMC Directive on the complete installation again.
- Length of set up time is measured at first cold start. Turning ON/OFF the may lead to increase of the set up time.driver.
- The Auxiliary DC output is defined between AUX+ and DIM-
- The efficiency is measured when the Auxiliary DC output is 100% loaded at 12V, 0.2A.



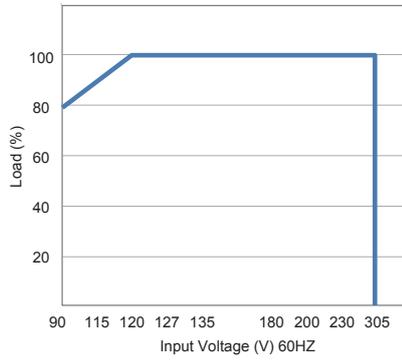
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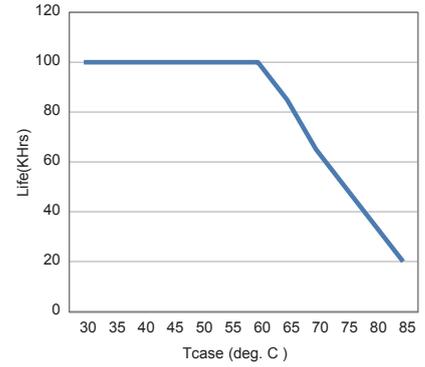
Derating Curve



Static Curve

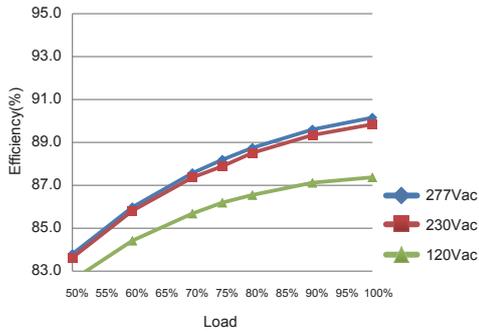


Life Time



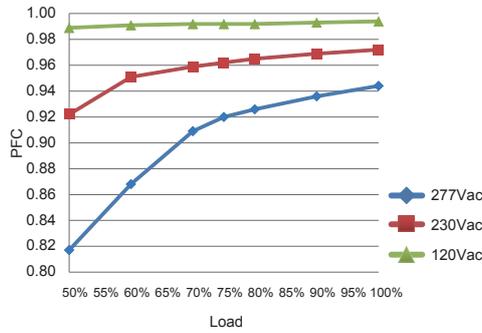
Efficiency

*36V/2.5A Model



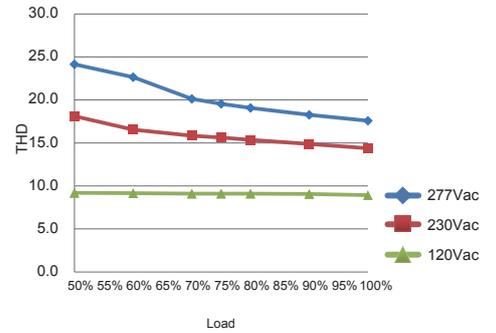
PFC vs Loading

*36V/2.5A Model



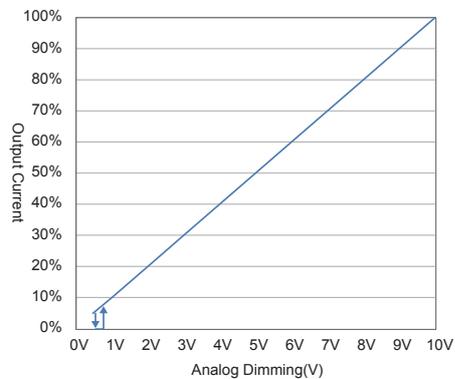
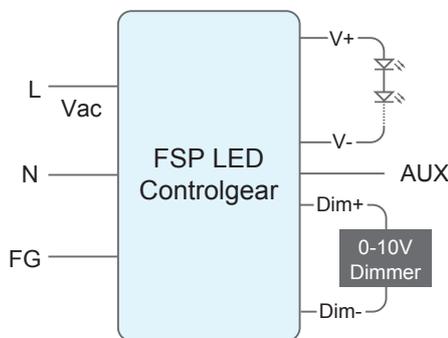
THD vs loading

*36V/2.5A Model



0-10V Dimming Curve

*Direct connecting to LEDs is suggested

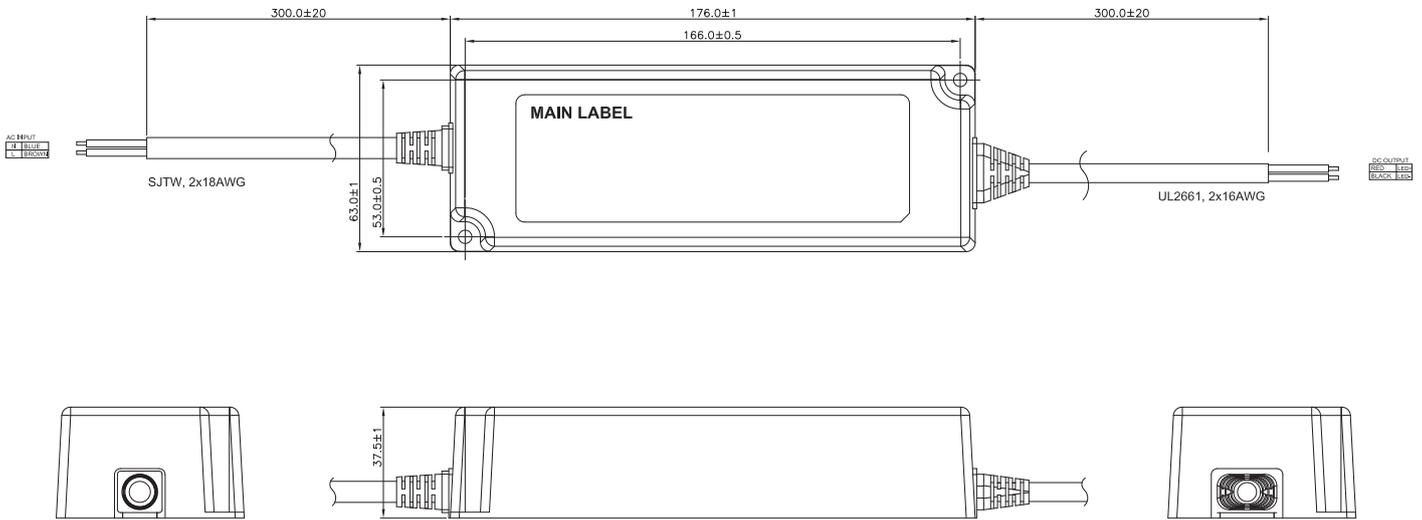


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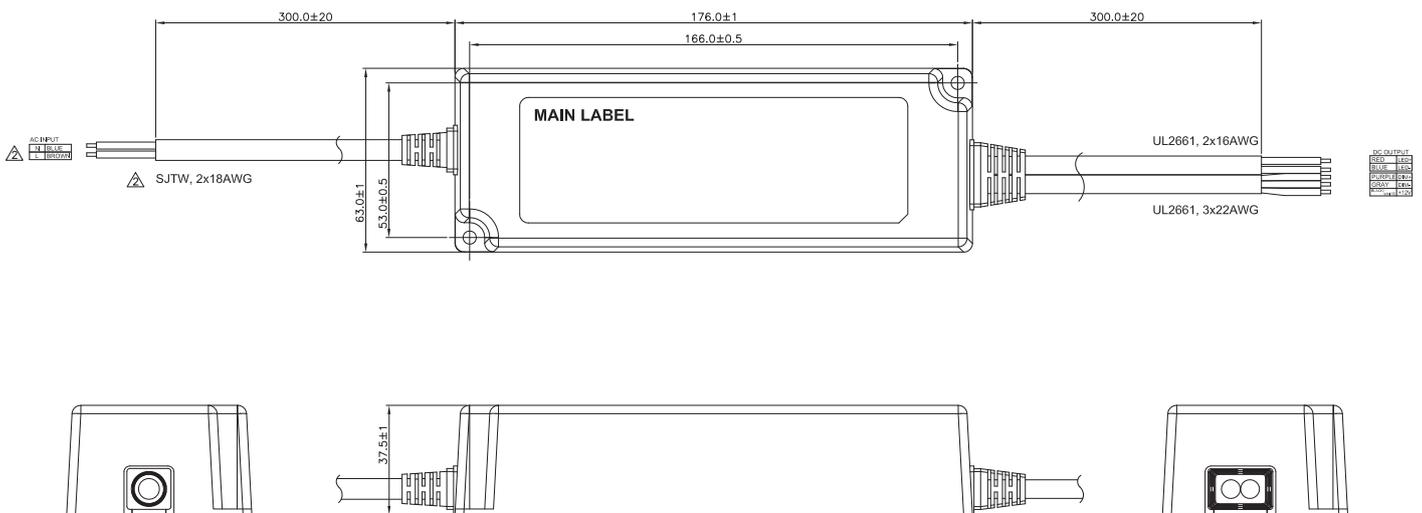
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G Type: FSP90-SZAP(XXX)G

Unit: mm



MG Type: FSP90-SZAP(XXX)MG



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